Claim 1. A nucleic acid encoding a fungal antigen selected from the group consisting of:

(a) a fungal antigen comprising an antigenic protein having a vaccine activity or an allergen activity originated from *Candida albicans*, wherein said antigenic protein comprises the partial amino acid sequence as shown by SEQ ID NO:1 in Sequence Listing and has a molecular weight of about 65,000 as determined by SDS-PAGE under reduced conditions,

(b) a fungal antigen comprising a peptide comprising an entire sequence of the amino acid sequence as shown by SEQ ID NO:5 in Sequence Listing, or a partial sequence thereof, the peptide having a vaccine activity or an allergen activity, and

(c) a fungal antigen comprising a peptide resulting from at least one of deletion, addition, insertion or substitution of one or more amino acid residues in the amino acid sequence as shown by SEQ ID NO:5 in Sequence Listing, or a partial sequence thereof, the peptide having a vaccine activity or an allergen activity.

Claim 2. The nucleic acid according to claim 1, wherein said nucleic acid comprises an entire sequence of the nucleotide sequence as shown by SEQ ID NO: 7 in Sequence Listing, or a partial sequence thereof.

Claim 3. A nucleic acid encoding a peptide having a vaccine activity or an allergen activity, wherein said nucleic acid is capable of hybridizing to the nucleic acid according to claim 1.

Claim 4. A nucleic acid encoding a fungal antigen selected from the group consisting of:

(d) a fungal antigen comprising an antigenic protein having a vaccine activity or an allergen activity originated from *Candida albicans*, wherein said antigenic protein comprises the partial amino acid sequence as shown by SEQ ID NO: 2 in Sequence Listing and has a molecular weight of about 25,000 as determined by SDS-PAGE under reduced conditions,

(e) a fungal antigen comprising a peptide comprising an entire sequence of the amino acid sequence as shown by SEQ ID NO: 6 in Sequence Listing, or a partial sequence thereof, the peptide having a vaccine activity or an allergen activity, and

(f) a fungal antigen comprising a peptide resulting from at least one of deletion, addition, insertion or substitution of one or more amino acid residues in the amino acid sequence as shown by SEQ ID NO: 6 in Sequence Listing, or a partial sequence thereof, the peptide having a vaccine activity or an allergen activity.

Claim 5. A nucleic acid according to claim 4, wherein said nucleic acid comprises an entire sequence of the nucleotide sequence as shown by SEQ ID NO:8 in Sequence Listing, or a partial sequence thereof.

Claim 6. A nucleic acid encoding a peptide having a vaccine activity or an allergen activity, wherein said nucleic acid is capable of hybridizing to the nucleic acid according to claim 4.

Claim 7. A process for producing a fungal antigen which is an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed, characterized in that said process comprises the steps of:

(1) obtaining living fungal cells;

(2) obtaining fungal cells of which cell wall has been substantially removed or at least partially removed;

(3) bursting the fungal cells of which cell wall has been substantially removed or at least partially removed; and

(4) obtaining an insoluble fraction.

Claim 8. A process for producing a fungal antigen

which is a solubilized fraction extracted and separated from an insoluble fraction obtainable from fungal cells of which cell wall has been substantially removed or at least partially removed, characterized in that said process comprises the steps of:

(1) obtaining living fungal cells;

(2) obtaining fungal cells of which cell wall has been substantially removed or at least partially removed;

(3) bursting the fungal cells of which cell wall has been substantially removed or at least partially removed;

(4) obtaining an insoluble fraction; and

(5) extracting and separating a solubilized fraction from the insoluble fraction.

Claim 9. The process according to claim 8, further comprising the step of purifying the resulting solubilized fraction by the use of a sugar group-specific affinity medium.

Claim 10. The process according to claim 8, wherein said solubilized fraction contains a soluble protein.

Claim 11. The process according to claim 8, wherein said step of extracting and separating a solubilized

fraction from the insoluble fraction includes a step of solubilizing the insoluble fraction with a buffer containing a surfactant.

Claim 12. The process according to claim 9, wherein said sugar group-specific affinity medium is an immobilized concanavalin A medium.

Claim 13. The process according to claim 7, wherein said fungal cells of which cell wall has been substantially removed or at least partially removed are obtained by enzymatic lysis treatment of the cell wall and/or physical treatment of the cell wall.

Claim 14. The process according to claim 7, wherein said fungal cells of which cell wall has been substantially removed or at least partially removed are protoplasts or spheroplasts of the fungal cells.

Claim 15. The process according to claim 7, wherein said insoluble fraction is obtained by subjecting components obtained by bursting the fungal cells of which cell wall has been substantially removed or at least partially removed to centrifugation treatment under conditions of about 100,000 x g.

Claim 16. A method of stimulating immunological responses against fungi in a vertebrate, comprising the step of administering a vaccine composition for inducing protective immunity against fungi or exhibiting therapeutic effects therefor by administering to individuals, characterized in that said vaccine composition contains the fungal antigen of claim 1 or claim 4 or a fungal antigen produced by the process of claim 7 or claim 8.

Claim 17. The method according to claim 16, wherein proliferation of fungi used in the preparation of the vaccine composition and/or fungal strains closely related thereto is suppressed by the immunological responses in a vertebrate to which the vaccine composition is administered, to thereby prevent or treat diseases caused by the fungi and/or the fungal strains closely related thereto.

Claim 18. A method of suppressing allergic reaction to fungi in a vertebrate, comprising the step of administering an allergen composition for preventing allergoses against fungi or exhibiting therapeutic effects therefor by administering to individuals, characterized in that the allergen composition contains

the fungal antigen of claims 1 or claim 4, or a fungal antigen produced by the process of claim 7 or claim 8.

Claim 19. The method according to claim 18, wherein allergoses caused by fungi used in the preparation of the allergen composition and/or fungal strains closely related thereto are prevented or treated by the immunological responses in a vertebrate to which the allergen composition is administered.

Claim 20. A method for diagnosing a disease caused by fungi in a vertebrate, comprising using the diagnostic composition for a disease caused by fungi, characterized in that said diagnostic composition contains the fungal antigen of claim 1 or claim 4, or a fungal antigen produced by the process of claim 7 or claim 8.